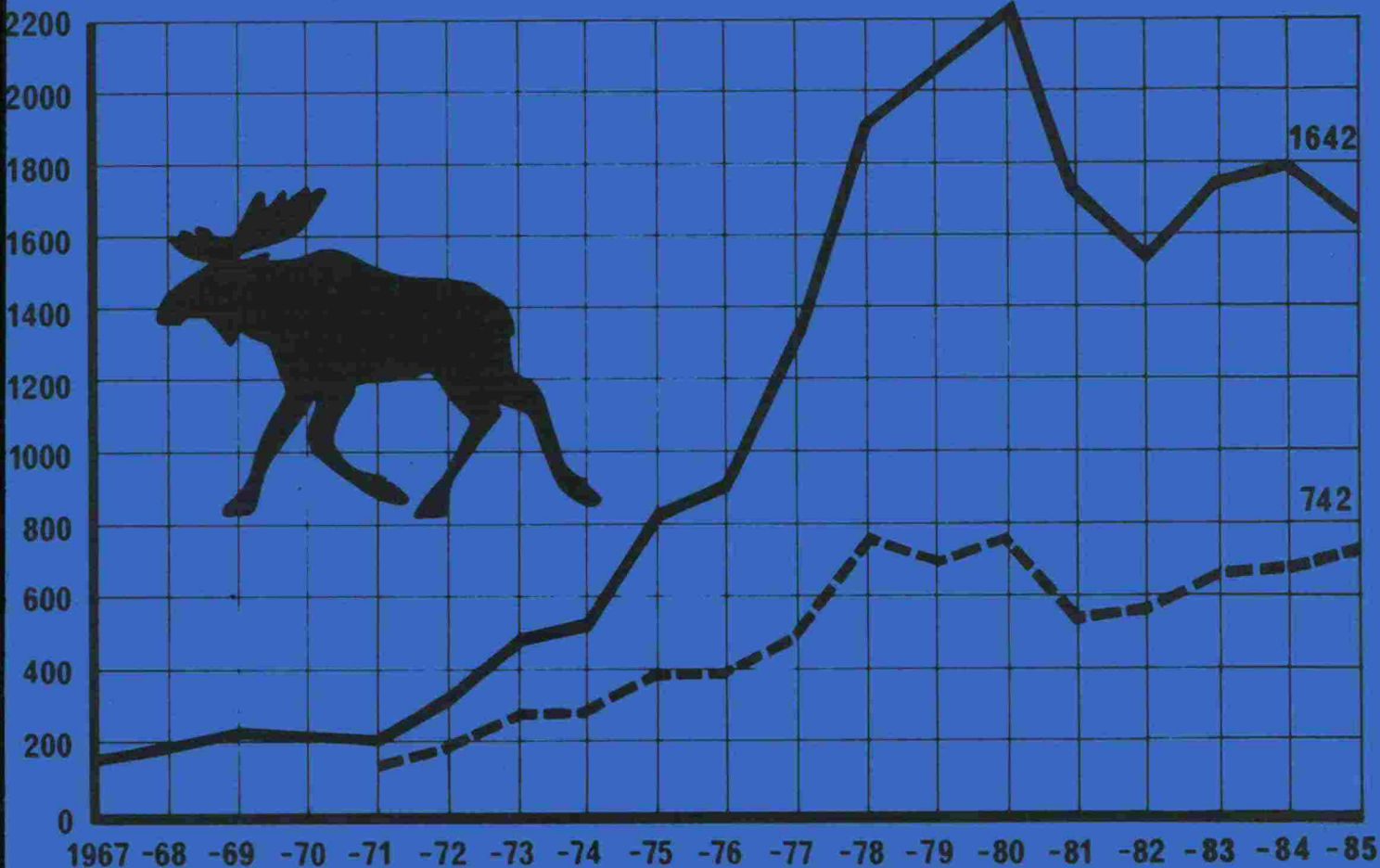


Accidents



ELK AND DEER ACCIDENTS ON PUBLIC ROADS IN 1985

ROADS AND WATERWAYS ADMINISTRATION
TRAFFIC DIVISION

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ELK AND DEER ACCIDENTS ON PUBLIC ROADS IN 1985

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PREFACE

According to statistics some 14000 police-reported accidents occur annually in Finland on the roads maintained by the Roads and Waterways Administration. Some 2500 of these accidents are caused by elks and white-tailed deer. The stock of both these animals has grown rapidly in Finland during the past ten years and has consequently become a problem for traffic safety.

This summary has been compiled by the Traffic Division of the RWA. The material has been collected and analysed by Mr Sami Sarkkinen, who is studying at the Helsinki University of Technology.

Chief Engineer

K. Härkänen

1. ELK AND DEER ACCIDENTS IN 1985 AND THE DEVELOPMENT OF ACCIDENTS

In 1985 elk and deer accidents decreased by approx. 3 % compared with the previous year. According to the RWA's statistics, which are based on police-reported accidents, there were 1,642 (1,797)* elk (*Alces alces*) accidents and 742 (654) white-tailed deer (*Odocoileus virginianus*) accidents on public roads in 1985. So the total number of the elk and deer accidents was 2,384 (2,451).

Table 1. Elk and deer accidents and their consequences in 1975-1985

Year		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Number of accidents	Elk	824	896	1285	1930	2067	2216	1729	1550	1755	1797	1642
	Deer	401	391	468	736	704	735	587	528	639	654	742
	In all	1225	1287	1753	2666	2771	2951	2316	2078	2394	2451	2384
Number of fatalities	Elk	10	3	2	3	9	7	3	5	6	5	4
	Deer	-	-	1	-	1	-	-	-	-	-	1
	In all	10	3	3	3	10	7	3	5	6	5	5
Number of injured	Elk	283	221	247	474	413	348	243	266	241	213	257
	Deer	10	6	12	25	11	13	28	6	19	13	18
	In all	293	227	259	499	424	361	271	272	260	226	275

In 1985 there were 206 (175) elk and deer accidents with personal injuries on public roads. Of these accidents 196 (164) were elk accidents and 10 (11) deer accidents. In 1985 4 (5) persons were killed and 257 (215) were injured in elk accidents. One (0) person was killed and 18 (13) were injured in deer (=white-tailed deer) accidents. In 1985 some 55,000 elks were shot, which is 20 % less than during the previous year.

*) The corresponding number for the previous year, 1984, is in parentheses

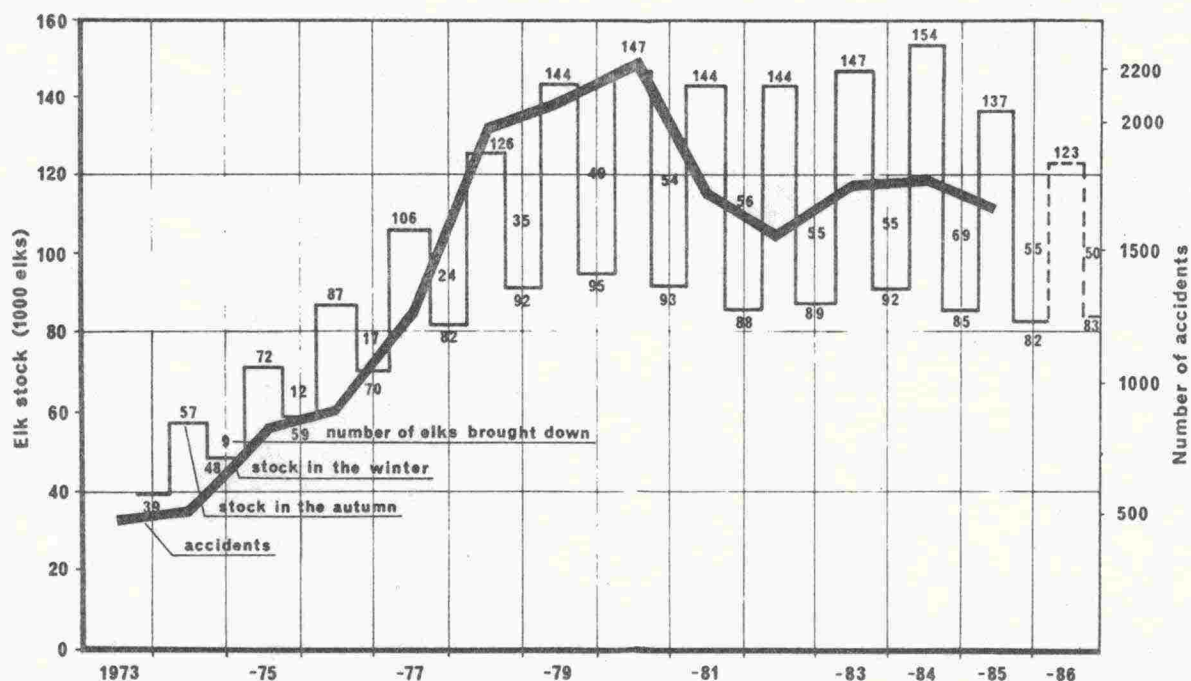


Fig. 1. Elk stock and elk accidents on public roads in 1973-85

2. ELK AND DEER ACCIDENTS AND THEIR DEVELOPMENT IN ROAD AND WATERWAY DISTRICTS IN 1985

Most of the elk and deer accidents occur in the southern road and waterway districts. As mentioned before, in 1985 the number of elk and deer accidents decreased by approx. 3 % compared with the previous year. The decrease was greatest in the districts of Kymi (18 %), Lappi (Lapland), Keski-Suomi (15 %), Pohjois-Karjala (14 %), Kuopio (13 %), and Uusimaa (10 %). The number of accidents increased in the districts of Kainuu (33 %), Häme (6 %), and Turku (3 %).

In 1985 the number of elk accidents with personal injuries decreased by nearly 9 % from the previous year. In 1985 the elk accidents with personal injuries decreased from the previous year in the districts of Turku and Kuopio. This kind of accidents increased in the districts of Uusimaa, Häme, Mikkel, Vaasa, Keski-Pohjanmaa, and Oulu. There were altogether 4 fatal elk accidents in 1985.

Table 2. Elk and deer accidents by road and waterway district in 1984-85

District	Elk accidents							Deer accidents							Elk and deer accidents in all		
	Fatal accidents		Personal injuries accidents		All elk accidents			Fatal accidents		Personal injuries accidents		All deer accidents					
	84	85	84	85	84	85	Change %	84	85	84	85	84	85	Change %	84	85	Change %
U	1	1	15	20	204	170	-17	-	1	7	-	96	101	+ 5	300	271	-10
T	-	1	34	27	262	250	- 5	-	-	2	4	273	302	+11	535	552	+ 3
H	1	-	28	34	242	229	- 5	-	-	2	4	268	314	+17	510	543	+ 6
Ky	1	-	15	16	147	119	-19	-	-	-	-	1	2		148	121	-18
M	1	1	9	14	148	138	- 7	-	-	-	-	5	5		153	143	- 7
PK	-	-	7	9	73	63	-14	-	-	-	-	-	-		73	63	-14
Ku	-	-	7	4	75	65	-13	-	-	-	-	-	-		75	65	-13
KS	-	1	11	9	120	99	-18	-	-	-	-	5	7		125	106	-15
V	-	-	8	19	154	134	-13	-	-	-	1	5	11		159	145	- 9
KP	-	-	4	9	82	83	- 1	-	-	-	-	-	-		82	83	- 1
O	1	-	8	15	154	155	+ 1	-	-	-	-	-	-		154	155	+ 1
Kn	-	-	7	9	42	57	+36	-	-	-	-	1	-		43	57	+33
L	-	-	6	7	94	80	-15	-	-	-	-	-	-		94	80	-15
Whole country	5	4	159	192	1797	1642	- 9	-	1	11	9	654	742	+13	2451	2384	- 3

Nearly all deer accidents occurred in the districts of Uusimaa, Turku and Häme. Over 95 % of all deer accidents occurred in these districts. In 1985 deer accidents increased by approx. 13 % from the previous year (1984 654, 1985 742).

In 1985 the number of deer accidents with personal injuries was almost the same as in 1984. There was one fatal accident and 9 persons were injured. Fatal deer accidents have been rare; since 1975 there have been altogether 5 fatal accidents (in the years 1977, 1979, 1985).

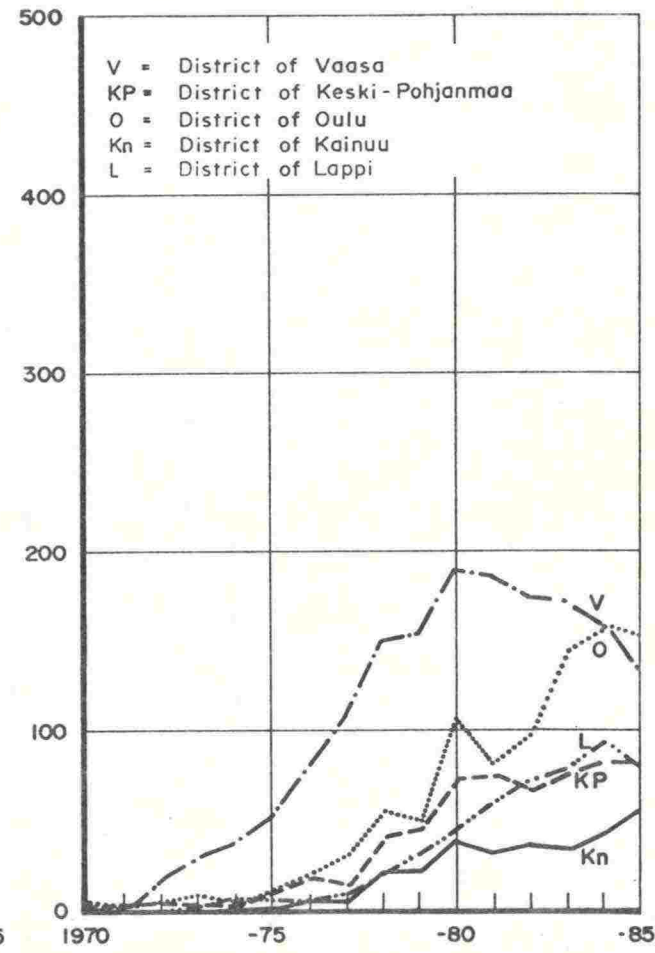
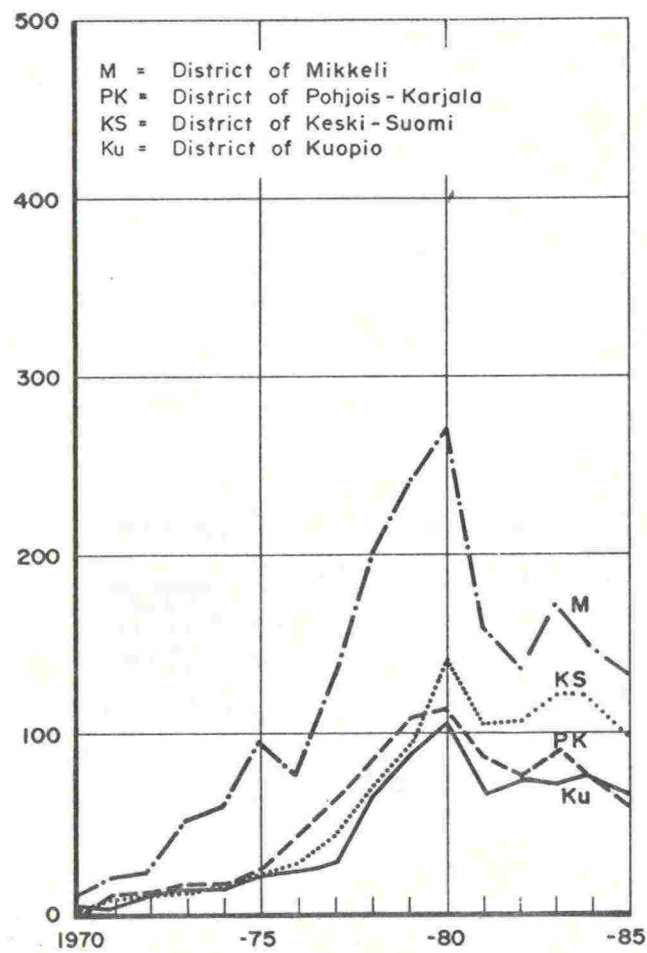
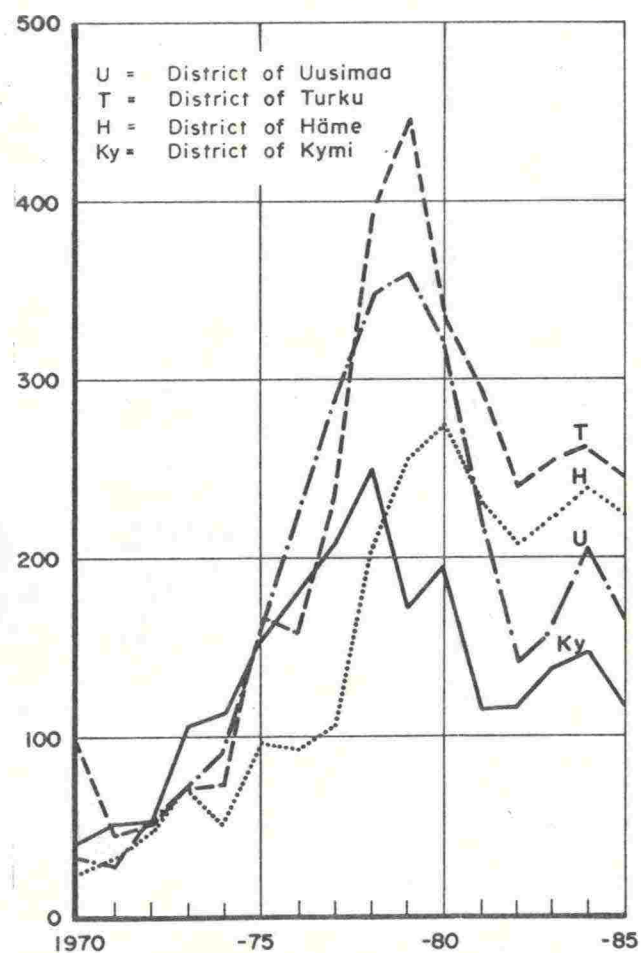
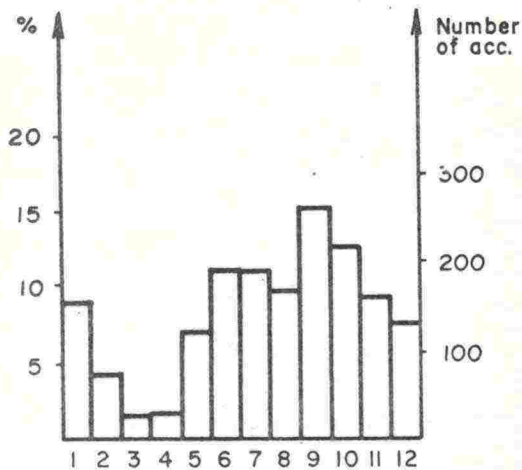


Fig. 2. Elk accidents by road and waterway district in 1970-1985 according to RWA's statistics

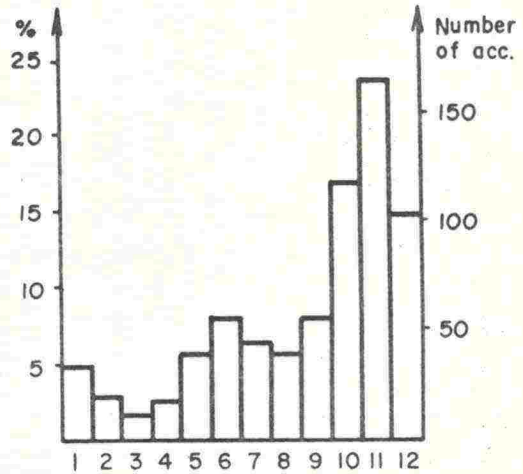
APPENDICES

ELK AND DEER ACCIDENTS BY MONTH AND BY DAY IN 1984-85 (AVERAGE)

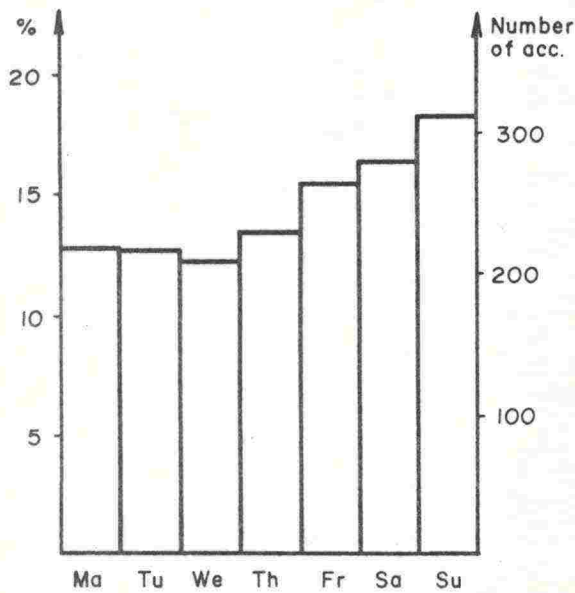
ELK ACCIDENTS BY MONTH
ON PUBLIC ROADS IN 1984-85
(AVERAGE)



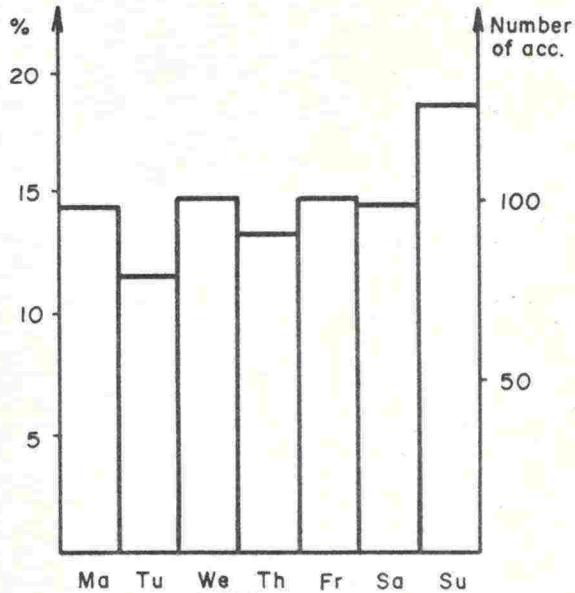
DEER ACCIDENTS BY MONTH
ON PUBLIC ROADS IN 1984-85
(AVERAGE)



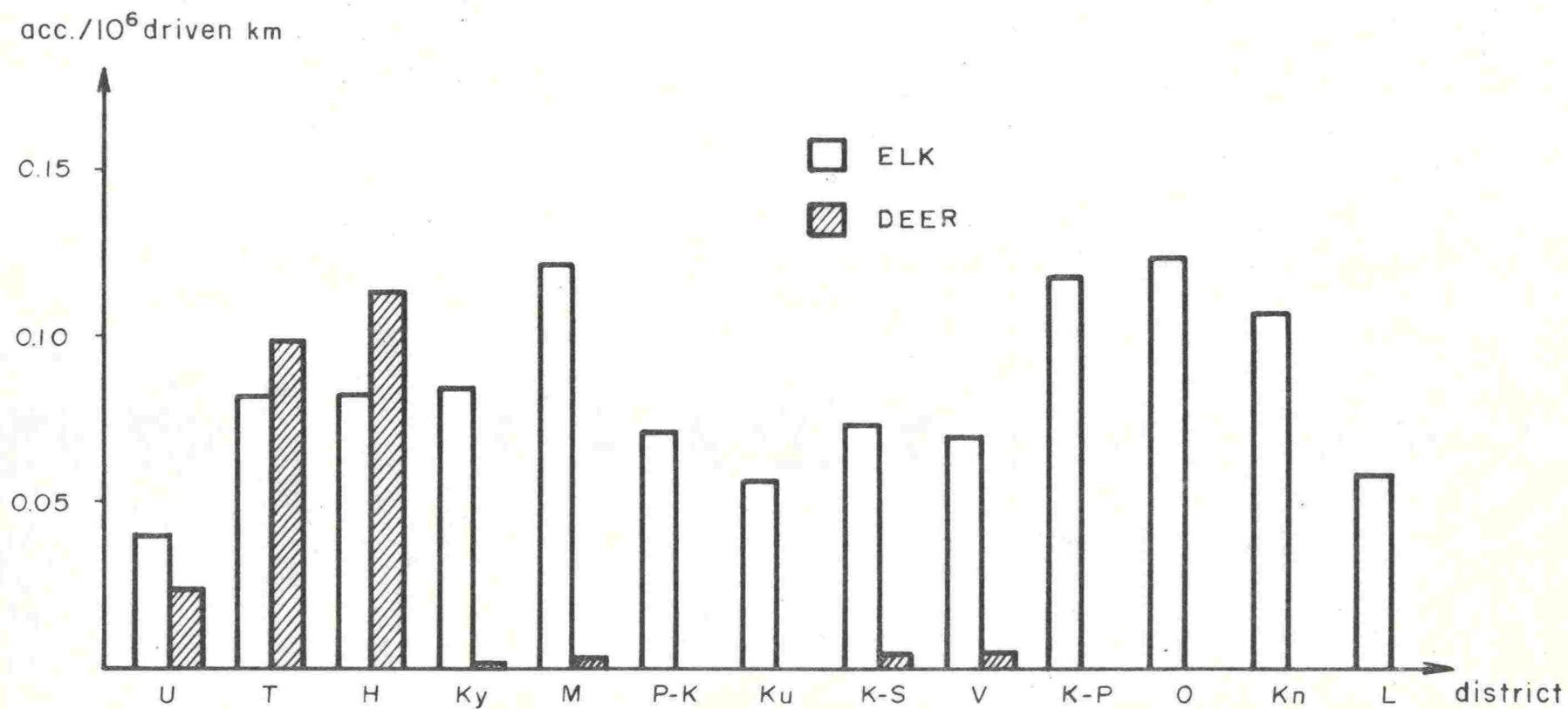
ELK ACCIDENTS BY DAY
ON PUBLIC ROADS IN 1984-85
(AVERAGE)



DEER ACCIDENTS BY DAY
ON PUBLIC ROADS IN 1984-85
(AVERAGE)



ELK AND DEER ACCIDENT RATES IN ROAD AND WATERWAY DISTRICTS IN 1985



RESULT OF ELK-HUNTING IN 1975-1985

GAME MANAGEMENT AREA	YEAR										
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Etelä-Häme	601	844	1711	2489	3358	3045	3123	1398	1941	2587	2221
Etelä-Savo	976	1226	1711	2657	4843	7423	6466	4839	4367	5711	2354
Keski-Suomi	578	794	1055	1657	2386	3722	4337	4266	3928	4517	4134
Kymi	1545	2724	4307	5596	6625	3770	2944	3229	2980	5122	2676
Lappi (Lapland)	874	905	1035	1201	1365	1497	1719	2136	2550	4354	6191
Oulun lääni	801	965	1184	1560	2169	3092	4290	7231	8240	11349	9073
Pohjanmaa	580	692	899	1181	1977	3641	6635	8135	6489	7609	4998
Pohjois-Häme	531	626	1162	1467	2350	2784	2791	2737	2266	3337	2462
Pohjois-Karjala	626	690	936	1310	2672	2567	3099	3762	3501	4115	2721
Pohjois-Savo	402	729	980	1284	2432	3720	3952	3348	3050	2791	3138
Ruots. Pohjanmaa	767	913	1716	2176	2734	3225	3943	4626	5201	4794	3241
Satakunta	849	1309	1760	3312	5064	5052	4957	4250	4090	5067	4148
Uusimaa	1699	2131	2809	4771	5305	5616	4358	2640	2981	3235	2727
Varsinais-Suomi	1458	2400	2863	3965	5707	4608	3564	2325	2210	2763	3004
Kainuu									1189	1492	1733
In all	12287	16948	24128	34626	48987	53762	56178	54922	54983	68843	54821

RESULT OF ELK-HUNTING IN 1985

GAME MANAGEMENT AREA	SHOOTING LICENCES GRANTED			SHOT FULL-GROWN ELKS				SHOT FAWNS				SHOT		
	full grown elks	fauns	in all	buck	doe	in all	shooting %	buck	doe	in all	shooting %	in all	shooting %	fauns %
Etelä-Häme	1 281	1 033	2 314	489	758	1 247	97.3	526	448	974	94.3	2 221	96.0	43.9
Etelä-Savo	1 544	927	2 471	616	849	1 465	94.9	481	408	889	95.9	2 354	95.3	37.8
Kainuu	968	875	1 843	593	367	960	99.2	396	377	773	88.3	1 733	94.0	44.6
Keski-Suomi	2 304	2 302	4 606	970	1 233	2 203	95.6	1 013	918	1 931	83.9	4 134	89.8	46.7
Kymi	1 915	968	2 883	734	1 020	1 754	91.6	479	443	922	95.2	2 676	92.8	34.5
Lappi (Lapland)	4 231	2 614	6 845	2 235	1 848	4 083	96.5	1 073	1 035	2 108	80.6	6 191	90.4	34.0
Oulu	5 561	3 929	9 490	2 613	2 758	5 371	96.6	1 828	1 874	3 702	94.2	9 073	95.6	40.8
Pohjanmaa	2 898	2 273	5 171	1 293	1 559	2 852	98.4	1 157	989	2 146	94.4	4 998	96.7	42.9
Pohjois-Häme	1 246	1 352	2 598	492	728	1 220	97.9	647	595	1 242	91.9	2 462	94.8	50.5
Pohjois-Karjala	1 915	1 108	3 023	824	933	1 757	91.8	514	450	964	87.0	2 721	90.0	35.4
Pohjois-Savo	1 885	1 510	3 395	853	950	1 803	95.6	685	650	1 335	88.4	3 138	92.4	42.5
Ruotsinkielinen														
Pohjanmaa	2 202	1 428	3 630	925	1 059	1 984	90.1	663	594	1 257	88.0	3 241	89.3	38.8
Satakunta	2 550	1 902	4 452	956	1 440	2 396	94.0	935	817	1 752	92.1	4 148	93.2	42.2
Uusimaa	1 968	1 247	3 215	856	861	1 717	87.2	535	475	1 010	81.0	2 727	84.8	37.0
Varsinais-Suomi	1 586	1 590	3 176	740	795	1 535	96.8	799	670	1 469	92.4	3 004	94.6	49.0
WHOLE COUNTRY	34 054	25 058	59 112	15 189	17 158	32 347	95.0	11 731	10 743	22 474	89.7	54 821	92.7	41.0

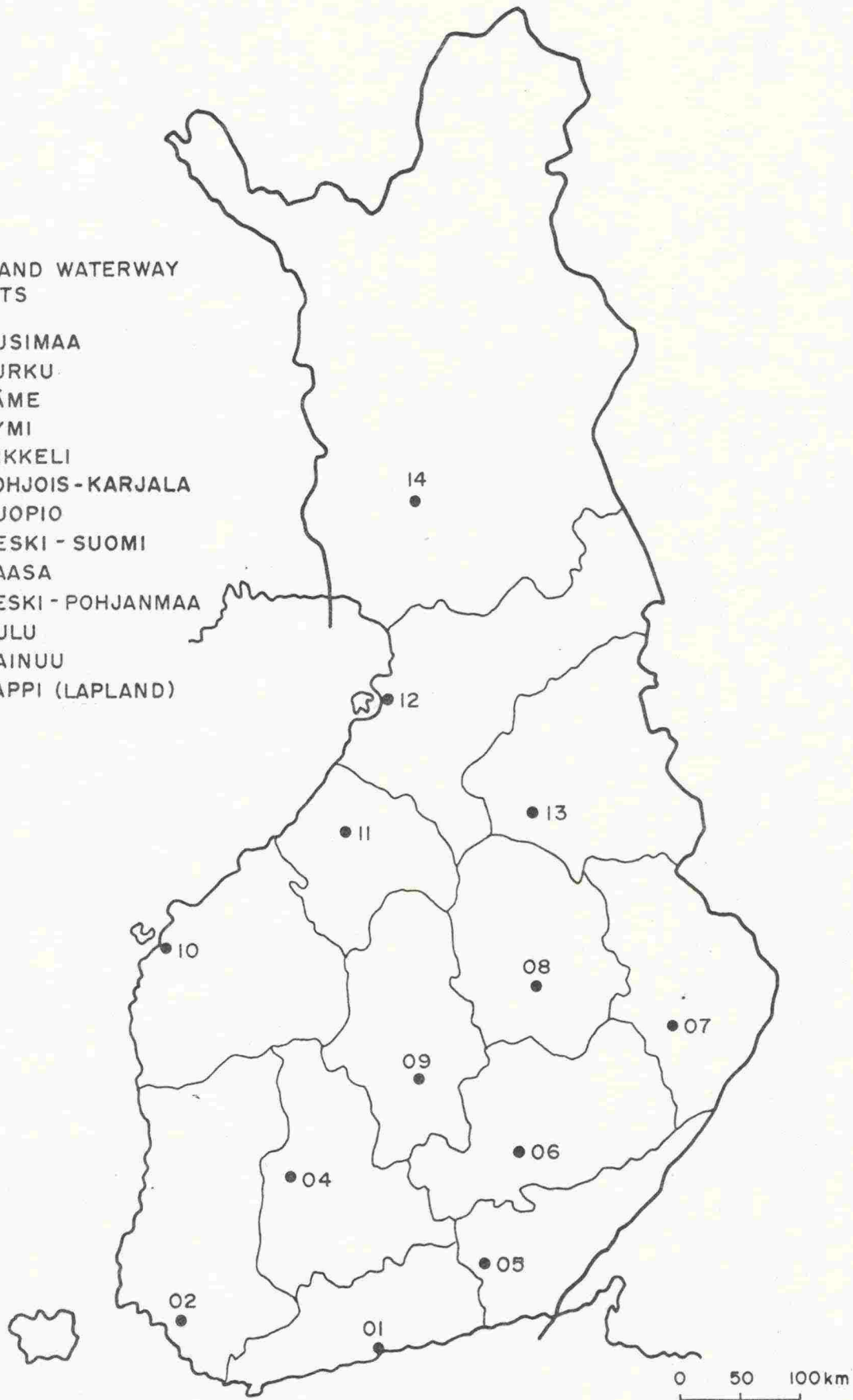
RESULT OF DEER-HUNTING IN 1985-86 (15.10.85-15.1.86)

GAME MANAGEMENT AREA	shooting licences	Shot				shooting %	fawns %	1984	
		buck	doe	fawn	in all			shot	shooting %
Etelä-Häme	1519	546	412	984	1942	84,7	50,7	1818	74,0
Etelä-Savo	51	14	15	13	42	64,7	31,0	31	65,9
Keski-Suomi	62	10	13	13	36	43,5	36,1	21	46,2
Kymi	50	9	10	6	25	42,0	24,0	28	71,8
Pohjanmaa	36	10	9	9	28	61,1	32,1	27	46,3
Pohjois-Häme	750	233	218	329	780	74,8	42,2	678	69,8
Ruots. Pohjanmaa	86	32	17	11	60	61,6	18,3	44	64,5
Satakunta	1427	537	401	726	1664	82,7	43,6	1443	71,8
Uusimaa	1241	315	289	370	974	58,6	38,0	834	54,1
Varsinais-Suomi	1572	550	448	978	1976	84,2	49,5	1496	75,4
Whole country	6794	2256	1832	3439	7527	77,0	45,7	6420	69,2

One is permitted to shoot 3 deer-fawns with one shooting licence, that is why the number of shot deer might be larger than the number of shooting licences granted.

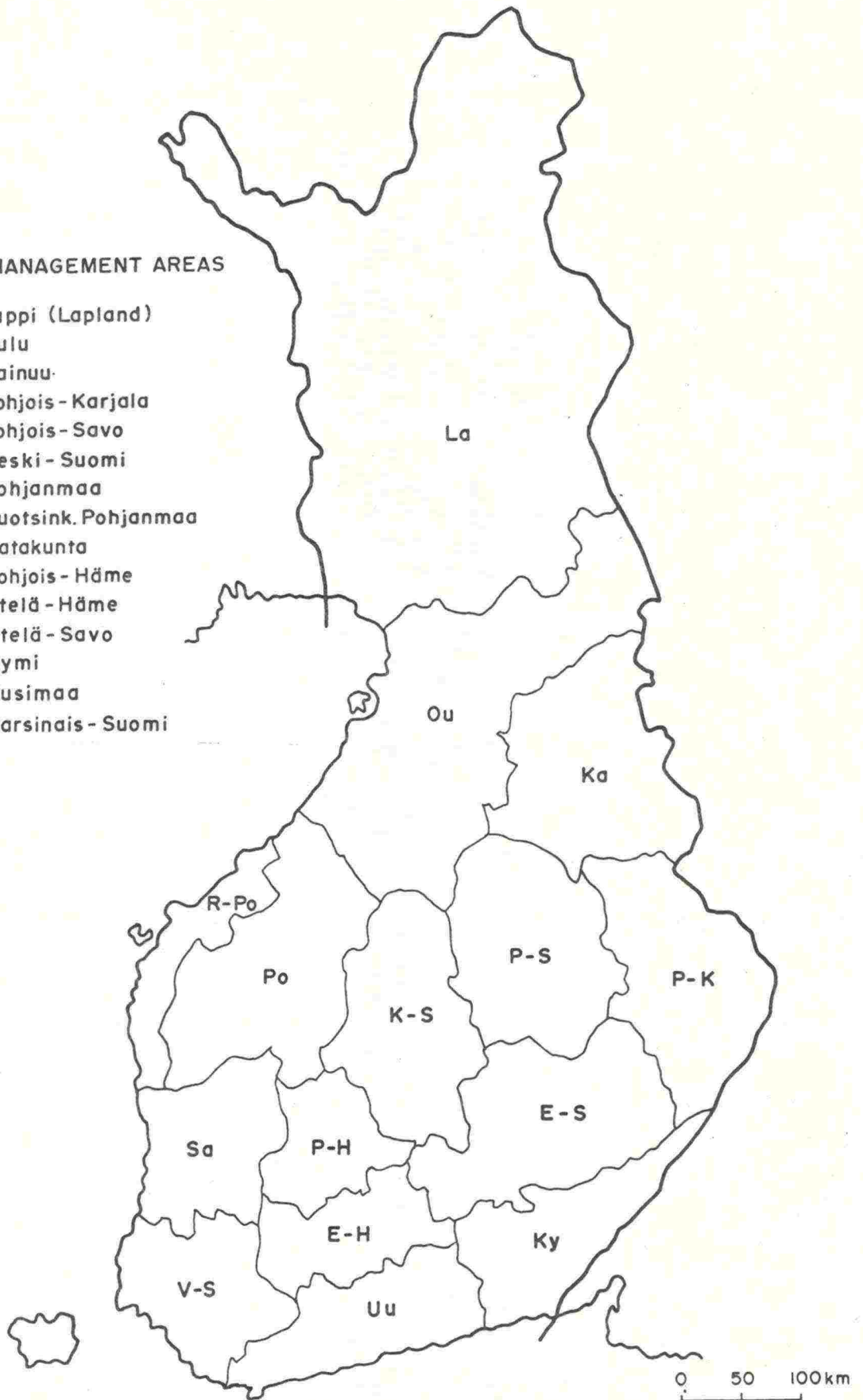
ROAD AND WATERWAY
DISTRICTS

- 01 - UUSIMAA
- 02 - TURKU
- 04 - HÄME
- 05 - KYMI
- 06 - MIKKELI
- 07 - POHJOIS-KARJALA
- 08 - KUOPIO
- 09 - KESKI - SUOMI
- 10 - VAASA
- 11 - KESKI - POHJANMAA
- 12 - OULU
- 13 - KAINUU
- 14 - LAPPI (LAPLAND)



GAME MANAGEMENT AREAS

- La = Lappi (Lapland)
- Ou = Oulu
- Ka = Kainuu
- P-K = Pohjois-Karjala
- P-S = Pohjois-Savo
- K-S = Keski-Suomi
- Po = Pohjanmaa
- R-Po = Ruotsink. Pohjanmaa
- Sa = Satakunta
- P-H = Pohjois-Häme
- E-H = Etelä-Häme
- E-S = Etelä-Savo
- Ky = Kymi
- Uu = Uusimaa
- V-S = Varsinais-Suomi



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